63D CONGRESS, 2d Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 834.

CHANNEL FROM APALACHICOLA RIVER TO EAST PASS, FLA.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORT ON PRELIMINARY EXAMINATION OF CHANNEL TO EAST PASS FROM APALACHICOLA RIVER, FLA., BY WAY OF CROOKED CHANNEL WITH A VIEW TO PROVIDING SUITABLE SHIP CHANNEL.

MARCH 16, 1914.—Referred to the Committee on Rivers and Harbors and ordered to be printed, with illustration.

WAR DEPARTMENT,
Washington, March 12, 1914.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated 11th instant, together with copy of report from Maj. Earl I. Brown, Corps of Engineers, dated October 8, 1913, with map, on preliminary examination of channel to East Pass from Apalachicola River, Fla., made by him in compliance with the provisions of the river and harbor act approved March 4, 1913.

Very respectfully,

LINDLEY M. GARRISON,
Secretary of War.

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WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, March 11, 1914.

From: The Chief of Engineers, United States Army.
To: The Secretary of War.
Subject: Preliminary examination of channel to East Pass from Apalachicola River, Fla.

1. There is submitted herewith, for transmission to Congress, report dated October 8, 1913, with map, by Maj. Earl I. Brown, Corps of Engineers, on preliminary examination of channel to East Pass from Apalachicola River, Fla., by way of Crooked Channel with a view to providing suitable ship channel, called for by the river and harbor act approved March 4, 1913.

2. The existing project for improvement of Apalachicola Bay provides for a channel across the bar at the mouth of Apalachicola River 100 feet wide and 10 deet deep at mean low water, and a channel not less than 150 feet wide and 18 feet deep through Link Channel and West Pass to the Gulf of Mexico. While recognizing that the existing route has some disadvantages, the district officer states that the route specified in the act is not suitable for a ship channel, being open to the objection that it lies in the exposed waters of an open bay, whose bottom is covered with soft silt to an unknown depth. On account of the silt problem, he believes that no successful channel can be constructed from Apalachicola River to East Pass at reasonable cost, and he therefore expresses the opinion that the proposed channel is not worthy of being constructed by the United States. The division engineer concurs in this opinion.

3. This report has been referred, as required by law, to the Board of Engineers for Rivers and Harbors, and attention is invited to its report herewith, dated January 13, 1914, concurring with the views of the district officer and division engineer.

4. After due consideration of the above-mentioned reports, I concur with the views of the district officer, the division engineer, and the Board of Engineers for Rivers and Harbors, and therefore report that the improvement of the proposed channel to East Pass from Apalachicola River, Fla., by way of Crooked Channel, with a view to providing suitable ship channel, is not deemed advisable at the present time.

DAN C. KINGMAN,
Chief of Engineers, United States Army.

REPORT OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS.

[Third indorsement.]

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
January 13, 1914.

To the CHIEF OF ENGINEERS, UNITED STATES ARMY:

1. The item of law calling for this report provides for a preliminary examination of channel to East Pass from Apalachicola River, Fla., by way of Crooked Channel with a view to providing suitable ship channel.

2. Apalachicola River empties into the bay of that name. The city of Apalachicola is located at the mouth of the river and is the starting point of the desired channel. Large quantities of silt are carried down the river and deposited in the bay at its mouth. There are now three channels across the bar, the main one being under improvement under a project which provides for a channel 10 feet deep and 100 feet wide to connect the Apalachicola River with deep water in the bay. Crooked Channel is another outlet into the bay making off in a southeasterly direction. East Pass is the main entrance into St. George Sound. It is under improvement in accordance with a project which provides for a depth of 20½ feet and a width of 300 feet. St. George Sound is separated from Apalachicola Bay by a shoal known as the Bulkhead, through which an artificial channel has been provided. It now carries a depth of about 8 feet. The improved channel into Apalachicola River has a depth of 10 feet, while Crooked Channel has a depth of 3 feet. Good anchorage is afforded behind the islands east and west of East Pass. Seagoing vessels now lie at these anchorages and receive cargoes from Apalachicola River and Carrabelle by lighters.

3. The object of the proposed improvement is to enable seagoing vessels to proceed to Apalachicola for cargo. The distance between East Pass and Apalachicola is 22 miles through the open bay. Experience with the 10-foot channel at the mouth of Apalachicola River shows that the channel deteriorates rapidly and is costly to maintain, indicating the practical certainty of great cost of maintaining a ship channel if constructed. A report submitted under authority of the act of June 25, 1910, estimated the cost of such a channel at from $1,500,000 to $3,000,000 for first construction, and $75,000 to $150,000 annually for maintenance.

4. In addition to the navigation facilities from Apalachicola through the improved channel at the mouth of the river and thence through the Bulkhead to East Pass, there is now under construction another outlet by way of the canal connecting Apalachicola River and St. Andrews Bay, which bay now has a project for a 22-foot channel to the gulf.

5. The total commerce of Apalachicola River is given as 143,503 tons. It appears, however, that 68,000 tons of this commerce goes upstream for use in or shipment from towns with rail connection, in preference to going to the bay for shipment by water. The report of the Chief of Engineers for 1912, gives the commerce for Apalachicola Bay as 38,735 tons, while the statistical table accompanying the district officer's report shows a commerce of 28,311 tons.

6. The district officer states that on account of the silt problem, he believes that no successful channel can ever be constructed from Apalachicola River to East Pass at reasonable cost, and therefore he reports the improvement as not worthy of being undertaken by the United States, in which view the division engineer concurs.

7. Interested parties were informed of the unfavorable tenor of the district officer's report and given an opportunity of submitting their views to the board, but no communications on the subject have been received.

8. An examination of the within report and such others as are available indicates quite clearly that the cost of a ship channel to East Pass from Apalachicola River by way of Crooked Channel would be exceedingly costly, both for first construction and for sub-

sequent maintenance. The amount of commerce handled at present between Apalachicola and East Pass is only moderate in extent, and while the construction of an adequate ship channel to Apalachicola would probably result in some increase, it is believed that the amount of this increase would be insufficient to warrant the large cost of the work, and therefore the board concurs in the views of the district officer and the division engineer and reports that in its opinion it is not advisable at this time for the United States to undertake the improvement of a channel to East Pass from Apalachicola River, Fla., by way of Crooked Channel with a view to providing suitable ship channel.

9. In compliance with law, the board reports that there are no questions of terminal facilities, water power, or other related subjects which could be coordinated with the suggested improvement in such manner as to render the work advisable in the interests of commerce and navigation.

For the board:

FREDERIC V. ABBOT,
Colonel, Corps of Engineers,
Senior Member Present.

PRELIMINARY EXAMINATION OF CHANNEL TO EAST PASS FROM APALACHICOLA RIVER, FLA.

UNITED STATES ENGINEER OFFICE,
Montgomery, Ala., October 8, 1913.

From: The District Engineer Officer.

To: The Chief of Engineers, United States Army
(Through the Division Engineer).

Subject: Preliminary examination for a channel to East Pass from Apalachicola River, Fla.

1. The river and harbor act approved March 4, 1913, directed that a preliminary examination be made for a channel to East Pass from Apalachicola River, Fla., by way of Crooked Channel with a view to providing suitable ship channel.

2. Apalachicola River, Fla., is formed by the junction at the southeastern corner of the State of Georgia of the Chattahoochee and Flint Rivers. It flows nearly due south 137 miles into Apalachicola Bay. Its width is 500 to 600 feet, and it has a navigable depth of 6 feet. Its low-water discharge is about 6,000 cubic feet per second. It receives large quantities of sand and silt from the Chattahoochee, which is brought down and deposited in the bay. It enters the bay by several mouths known as Apalachicola River, Big St. Marks River, Little St. Marks River, and East River. The city of Apalachicola is located at the mouth of the main river, and is the starting point of the desired channel. At the point where the mouth in question enters the bay an extensive bar has been formed by sand and silt, and there are now three channels across this bar, one starting opposite the town and proceeding in an easterly direction into the bay known as Crooked Channel, the main channel which is the one now under improvement extending in a southerly direction into the bay, while a minor channel of but little consequence lies between the two. The first, or Crooked Channel, is the one by way of which the proposed channel is to reach East Pass.

3. Apalachicola Bay is a portion of St. Georges Sound, and is separated from the main portion of that body by a shallow reef known as the Bulkhead, through which an artificial channel has been provided affording intercommunication. East Pass is the main entrance to St. George's Sound from the Gulf of Mexico. Its channel is about 300 feet wide and 20 to 21 feet deep. It is under improvement, the project depth being 20½ feet. Dog Island lies on the east side of the Pass and St. George's Island on the west side. Good anchorage and deep water are found within the Pass under the lee of these islands. This anchorage ground is where vessels now lie and receive cargoes from Apalachicola and Carrabelle by lighter. The object of the proposed improvement is to enable vessels to proceed to Apalachicola for cargo. This distance from Apalachicola to East Pass by the proposed route is 22 miles, all of which is in open bay. The greatest draft that can now be carried from Apalachicola to East Pass is 8 feet through the Bulkhead Shoals. There is a depth of 10 feet in the main channel at the mouth of the river and 3 feet in Crooked Channel.

4. The question of providing a deep-water outlet for the Apalachicola-Chattahoochee-Flint-Chipola River system is one that has been pressed upon Congress for a long time, and has been made the subject of many reports and recommendations.

5. A description of the bay and a discussion of various routes for a deep-water channel will be found in a report made in 1872, and printed in Executive Document No. 241, Forty-second Congress, second session. No definite route, however, was selected, although an 11-foot project was adopted for the improvement of the inner bar. An examination of the bay and mouth of the river was made in 1879 to determine what changes had occurred since the survey of 1871, report of which is printed in Executive Document No. 82, Forty-fifth Congress, third session, and in the Annual Report of the Chief of Engineers for 1879, page 823. In 1896 a report was submitted which will be found printed in House Document No. 129, Fifty-fourth Congress, second session, recommending a channel 18 feet deep and 150 feet wide from Apalachicola River to West Pass, the outlet of Apalachicola Bay, about 10 miles distant from Apalachicola. This project was adopted, but apparently was never completed. In 1906 a report was made on St. Georges Sound, including Carrabelle and Apalachicola, in which the question is again discussed. The report is printed in House Document No. 422, Fifty-ninth Congress, first session. The district officer summed up the advantages and disadvantages of the East Pass route, and of the West Pass route, by stating that the disadvantages of the former (which are applicable to the route now under consideration) are long tow, liability to interruption from bad weather, limited depth, and insufficient protection at the anchorage at East Pass. Its advantages are a deep and satisfactory outlet to the Gulf and the limited expenditure required for maintenance of connecting channels, which, however, will disappear if the channels are deepened sufficiently to provide proper facilities for present traffic. The disadvantages of the West Pass route are stated to be cost of original improvement and maintenance, and difficulty in increasing limiting depth much beyond 18 feet. Its advantages are given as shorter distance to anchorage which will lessen interruptions by weather, reduce cost of handling, and permit

prompt dispatch of vessels and a deeper and better protected anchorage, further stating that the Dog Island anchorage is seldom used by vessels loading for Apalachicola. On account of tows having to cross East Pass they anchor behind St. Georges Island, a more exposed locality. He further reports that the benefits from the improvement would not be commensurate with the cost and recommends the abandonment of the 18-foot channel at the mouth of the river, a 10-foot channel being considered sufficient. This is the basis of the present project. In House Document No. 670, Sixty-first Congress, second session, is a report upon the advisability of an inland water route from Apalachicola River to St. Andrews Bay, in which the necessity for a deep-water outlet for the Apalachicola River system was offered as an argument for its construction, the district officer stating that this canal and the opening of St. Andrews Bay would afford the system an outlet to deep water. This project has been adopted and the work of constructing the canal is in progress. St. Andrews Bay is also under improvement under a project providing for a depth of 22 feet over the ocean bar.

6. The river and harbor act of June 25, 1910, directed a further examination of Apalachicola Bay and St. Georges Sound to determine the best location for a deep-water harbor, with entrance channel from the Gulf of Mexico by way of East Pass, West Pass, New Inlet, or by an artificial cut across St. Georges Island, consideration being given to the respective needs of the cities of Apalachicola and Carrabelle for increased harbor facilities. A board of three engineer officers was appointed to consider this matter, and they submitted a report which is printed in House Document No. 1057, Sixty-second Congress, third session. The board concluded that to secure the maximum benefits to commerce at this locality deep water must be carried to Apalachicola. It was stated that the East Pass route was preferred by local interests, and this is practically the route now under consideration. The board reported that the cost of the proposed improvement, estimated at from $1,500,000 to $3,000,000, according to the route selected, was considered greater than justified by present or immediately prospective commerce, especially when considered in connection with the contemplated outlet to Apalachicola River by way of the canal to and improvements at St. Andrews Bay. It was therefore deemed inadvisable to undertake the construction of any other channels at this locality prior to the completion of the afore-mentioned projects and a demonstration of their results upon river commerce.

7. It is conceded in practically all the reports noted above that a deep-water outlet is needed at this locality, not merely for the benefit of Apalachicola itself but for the entire valley of this system of rivers, comprising about 450 miles of navigable river, over which regular lines of steamers are operating. Last year the total commerce on each of these streams was as follows:

River.	Tons.	Value.
Chattahoochee	100,122	$11,742,547
Flint	26,633	1,599,335
Chipola	6,289	318,168
Apalachicola	143,503	13,215,737
Apalachicola Bay	38,735	2,331,084

A full tabulated statement [1] of this commerce is given in the table appended to this report. It will be seen that the principal commodities are cotton, cotton seed, fertilizers, cypress and pine lumber, grain, hay, and feed stuffs, naval stores, logs, honey and sirup, manufactured iron and steel, general merchandise, and miscellaneous packages. It will be noted that practically all the cotton went upstream, going to Columbus, Bainbridge, or Albany, at which points it was either manufactured or reshipped to some export port as Savannah or Mobile. About $1,000,000 worth of cotton was handled on these streams coming from the plantations along the rivers. Most of the cotton seed also moved upstream. The largest movement of fertilizers is downstream, being distributed to the plantations in the river valley from Columbus and Bainbridge. About $420,000 worth of cypress and pine lumber was exported from Apalachicola. This is cut in mills at Apalachicola, and can not be diverted to St. Andrews Bay route. Grain, hay, and feed stuffs are received by import at Apalachicola, and distributed upstream, although some are shipped from Bainbridge down. That which is imported to Apalachicola comes from Mobile, via the steamer *Tarpon*, which also stops at St. Andrews Bay. This could be diverted to that route. The movement of naval stores is quite large. Most of this was carried by water to connecting rail points at Alaga, Bainbridge, or River Junction, and shipped by rail to Savannah or Jacksonville and would not have been affected by the St. Andrews Bay route. The general merchandise and miscellaneous package freight is very large, but it is estimated that not to exceed 25 per cent of this business will be affected by the St. Andrews Bay Canal. I do not believe, therefore, that the expected diversion of trade to St. Andrews Bay route will occur. If any considerable commerce develops on that line it will be a new commerce, created and brought into being by those improvements, while the existing commerce will continue mainly along existing lines.

8. It appears to me that the real cause for a demand for an extension of deep water into Apalachicola River is the necessity for the river boat to be able to meet the seagoing vessel, so that excessive cost of intermediate transfer may be eliminated. It is physically possible for this to occur now at any one of the various anchorages just inside the two passes, but it does not take place because the frail river boat can not afford the risk of entering and navigating the open water of the bay, even though the anchorages are only 8 and 20 miles, respectively, distant from Apalachicola. Yet, to reach deep water in St. Andrews Bay at either St. Andrews or Panama City, these same river boats will have to navigate 30 miles of exposed water in East Bay, where they will have little chance of escape if caught in rough weather. I myself have been on this bay when a river boat could not have lived. In view of the above facts I am of the opinion that the proposed outlet to the Apalachicola system of rivers via St. Andrews Bay will not meet the necessities of the case, and that a deep-water outlet at Apalachicola is still needed. This brings up the question as to what route shall be followed by such a channel.

9. The route which the act directs to be reported upon is not suitable, nor are any of the other routes which have been considered

[1] Not printed.

heretofore suitable for a ship channel. They are all open to the insuperable objection that they lie in the exposed waters of an open bay, whose bottom is covered with soft silt to an unknown depth. Efforts in the past to dredge deep channels in bays under those conditions have generally ended unsatisfactorily. The trouble experienced in attempting to keep open the 10-foot channel from the river into the bay is a sufficient warning of what would be experienced in attempting to open a deeper channel. The proper procedure in a case of this kind is to abandon the bay as a route and to construct a lateral canal around the shore line. In the case in question this can be done either to East Pass or to West Pass. Following approximately along the route prescribed by Congress, the channel would leave Apalachicola River by Crooked Channel, crossing East Bay, 5 miles wide, straight to Cat Point, thence following the north shore line of St. George's Sound about 8 miles, thence crossing the Sound straight to the anchorage. Unfortunately East Bay receives the discharge of all the mouths of the river except the main one. The bed of the bay is silt, and therefore is still open to the objection named above, although to a less extent than any other channel that could be constructed to East Pass. On account of the silt problem I believe that no successful channel can ever be constructed from the river to East Pass at a reasonable cost, and therefore report that a channel from Apalachicola River to East Pass is not worthy of being constructed by the United States.

10. There are no terminals on the proposed route except in the city of Apalachicola, which are seven in number. These wharves are of piles, capped and decked, and are apparently sufficient for the needs of present commerce. They all have physical connection with the railroads running into Apalachicola, and are open to all consumers on equal terms except two, one of which is used by its owners exclusively and the other has never been used.

11. There are no questions of flood control, water power, or other related subjects to be considered in connection with this improvement.

EARL I. BROWN,
Major, Corps of Engineers.

[First indorsement.]

OFFICE OF DIVISION ENGINEER, GULF DIVISION,
Baltimore, Md., December 23, 1913.

To the CHIEF OF ENGINEERS:

Forwarded, concurring in the opinion of the district officer that the channel from Apalachicola River, Fla., to East Pass, by way of Crooked Channel, is not worthy of improvement by the United States to the extent of creating a ship channel by that route.

LANSING H. BEACH,
Colonel, Corps of Engineers,
Division Engineer.

[For Report of the Board of Engineers for Rivers and Harbors, see page 2.]

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S.A.

U. S. ENGINEER OFFICE, MONTGOMERY, ALA.

Respectfully submitted to the Chief of Engineers,
To accompany report of Oct. 8, 1913

Maj. Corps of Engrs. U.S.A.

Preliminary Examination for a Channel to East Pass from Apalachicola River, Florida.

R.C.H.

House Doc. No. 834; 63d Cong., 2d Sess.